7. Lineup

Program Name: Lineup.java Input File: lineup.dat

When the drill sergeant blows his whistle, all of the privates must line up. To make it easy to check roll, the privates line up in the order on the list that the sergeant has. Unfortunately he has lost that list, and wants you to reconstruct it before 0800 today.

The order of the list is as follows:
If two privates are different height, the shorter one goes first.
If two privates are the same height, the one with the lexicographically smallest last name goes first.
If they have the same height and last name, the one with the lexicographically smallest first name goes first.
Lexicographical order is the order Java compares strings in by default.

Input
The first line of input will contain a single integer T, the number of test cases.
The first line of each test case contains a single integer N, the number of soldiers.
The following N lines each contain three integers F, L, and H, where F is the first name of the soldier, L is the last name of the soldier, and H is the height of the soldier in inches.

Output
For each test case, print the test case number on its own line, followed by the names of the soldiers in the order they are on the roll call sheet.

Constraints
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1 <= T <= 10
1 <= N <= 1000
1 <= H <= 100
```

Example Input File
```
2
2
David Smith 66
Andrew John 65
5
Josh Smith 67
John Smith 67
Jake Smithman 67
Jack Smith 65
Jacob Smith 75
```

Example Output to Screen
```
Test Case #1:
Andrew John
David Smith
Test Case #2:
Jack Smith
John Smith
Josh Smith
Jake Smithman
Jacob Smith
```

Explanation of Example Output
In the first test case, Andrew John is shorter than David Smith, so Andrew goes first and David goes second.

In the second test case, Jack Smith is the shortest, so he goes first. Then, we have 3 people who are 5'7", so we need to sort them by name. Smith comes before Smithman lexicographically, and the tie between John and Josh is broken since John comes lexicographically before Josh. Thus, the next three are John, Josh, and Jake. Finally, Jacob Smith is the tallest, so he comes last.